



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/629,015

07/29/2003

Kimberly Kuhlman

CIT.PAU.39

7638

23386

7590

11/01/2005

MYERS DAWES ANDRAS & SHERMAN, LLP
19900 MACARTHUR BLVD.,
SUITE 1150
IRVINE, CA 92612

EXAMINER

NGUYEN, KIET TUAN

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,015

Applicant(s)

KUHLMAN ET AL.

Examiner

Kiet T. Nguyen

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-11, 13-27, 29, 30, 32-37, 39, 41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8-11, 13-18, 29, 30, 32-36, 41 and 42 is/are allowed.
- 6) ☒ Claim(s) 19-26, 37 and 39 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2881

The amendment filed on 19 May 2005 has been acknowledged.

The final rejection, applied to claims 1-6, 8-11, 13-18, 25-27, 29-30, 32-37, 39 and 41-42 under 35 U.S.C. 112 first paragraph, applied to claims 1-4, 8, 11, 14-18, 29 and 33 under 35 U.S.C. 102(b) anticipated by Larson et al. ("Advances in Atom Probe Specimen Fabrication from Planar Multilayer Thin Film Structures"), and applied to claims 5-6, 9-10, 13, 27, 30, 32, 34-36 and 41-42 under 35 U.S.C. 103(a) unpatentable over Larson et al. ("Advances in Atom Probe Specimen Fabrication from Planar Multilayer Thin Film Structures"), is now withdrawn because applicant's remarks rebutting this rejection has been found to be persuasive; in that the term "nonlithographically" is defined as mechanical, electrical or chemical means (see page 4, lines 12-16 or [0014] of the specification). However, the final rejection applied to claims 19-26, 37 and 39 is still maintained because each of the independent claims 19, 25, 37 and 39 does not recite any means that is distinction from Larson et al. ("Advances in Atom Probe Specimen Fabrication from Planar Multilayer Thin Film Structures").

Rejection Under 35 U.S.C. 102(b)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19-26, 37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Larson et al. ("Advances in Atom Probe Specimen Fabrication from Planar Multilayer Thin Film Structures").

Larson et al. disclose, in figs. 1-10, a method for preparation of a specimen for atom probe analysis. The method includes lithographically defining a plurality of posts having prismatic and quadrilateral sections in a slab (see at least some posts having the same dimensions arranged in col. of fig. 2), having a very high aspect ratio (see page 26, lines 8-11 in left col.), defined by parallel and intersecting cutting grooves (see fig. 2); removing the posts from the slab (see fig. 3); mounting the post on a metallic pin (see fig. 4); using FIB for shaping the post to a tip shape (see fig. 5); filling an oxide film to serve as an etch stop for lithographic patterning of the posts (see page 26, lines 1-10 in left col.); and fracturing the posts from the slab by a knife or other sharp implement (see page 26, lines 7-11 in right col.).

Claims 1-6, 8-11, 13-18, 29-30, 32-36 and 41-42 are allowed.

Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter

The prior art fails to disclose a method and/or source for producing a multiplicity of individual specimens for atom probe analysis, which includes means for nonlithographically defining a plurality of removable high aspect ratio posts in a slab as

Art Unit: 2881

recited in claims 1 and 29; or means for cross sawing grooves into a slab of material for defining a plurality of high aspect ratio posts as recited in claims 27, 41 and 42.

Applicant's arguments filed on 19 May 2005 have been fully considered but they are not persuasive in view of the foregoing reasons.

REMARKS

Applicant is requested to address all features in each claim in the rejection above. Since, at least some the features in at least some independent claims 19, 25, 37 and 39 are not mentioned in previous responses.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet T. Nguyen whose telephone number is 571-272-2479. The examiner can normally be reached on Monday-Friday from 8.00 AM to 6.00 PM.

Art Unit: 2881

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee, can be reached on Monday-Friday. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KIET T. NGUYEN
PRIMARY EXAMINER